CLAIMS

What is claimed is:

1.   Apparatus for processing a communication received by at least two (2) antenna assemblies, said communication being comprised of sequentially transmitted slots of equal length, said apparatus comprising:

a channel estimator;

first and second units coupled to the channel estimator for determining signal quality based on at least one of history, recent channel estimation and optimization.

2.   The apparatus of claim 1 wherein signal quality outputs of said first and second units are combined in a combining means.

3.   The apparatus of claim 2 wherein the output of said combining means provides a signal quality output.

4.   The apparatus of claim 1 further comprising:

switching means responsive to the signal quality for selectively coupling slots from said antenna assemblies to a common input of said channel estimator wherein the slots from each antenna assembly are coupled to said common input in a uniform sequence responsive to a first quality output.

5.   The apparatus of claim 4 wherein said switching means couples outputs of the antenna assemblies to said common unit in a non-uniform sequence responsive to a second quality output different from said first quality output.

6.   The apparatus of claim 4 wherein there are two antenna assemblies and switching in said uniform sequence comprises:

switching the slots from said two antenna assemblies in an alternating fashion.

7. The apparatus of claim 4 wherein there are two antenna assemblies and switching in said uniform sequence comprises:

switching pairs of slots from said two antenna assemblies in an alternating fashion.

8. The apparatus of claim 5 wherein there are two (2) antenna assemblies and switching in said non-uniform sequence comprises:

forwarding at least two consecutive slots of one of said two antenna assemblies to said common input before forwarding a single slot from the other of said two antenna assemblies.

9. The apparatus of claim 1 comprising:

means for selectively coupling the communications received by each antenna assembly to said channel estimator.

10. Apparatus for processing a communication received by at least two antenna assemblies said communication being comprised of sequentially transmitted slots of equal length, said apparatus comprising:

a channel estimator;

switch means for selectively coupling signals from said antenna assemblies to an input of said channel estimator; and

said channel estimator providing a signal quality output.

11. The apparatus of claim 10 wherein said switch means alters a switching pattern responsive to a signal quality coupled thereto.

12.   The apparatus of claim 11 wherein two (2) antenna assemblies are provided and said switch means couples slots from said two antenna assemblies in an alternating fashion responsive to a first signal quality.

13.   The apparatus of claim 11 wherein two (2) antenna assemblies are provided and said switch means couples slots from said two antenna assemblies in a non-alternating fashion responsive to a first signal quality.

14.   Apparatus for processing a communication received by at least two (2) antenna assemblies, said communication being comprised of sequentially transmitted slots of equal length, said apparatus comprising:

a channel estimator;

switch means for selectively coupling slots from said antenna assemblies to a common input of said channel estimator in a given pattern;

first and second units coupled to said channel estimator for determining signal quality based on at least one of history, recent channel estimation and optimization.

15.   The apparatus of claim 14 wherein said switching means alters said given pattern responsive to a signal quality value.

16.   A method for selectively coupling a communication received by at least two (2) antenna assemblies to a channel estimator, said communication being comprised of sequentially transmitted slots of equal length, comprising:

said channel estimator:

estimating channel response; and

a switch:

controlling the switching of the communication of said two (2) antenna assemblies responsive to said channel response.

17.   The method of claim 16 wherein first and second combining means generate first and second quality outputs responsive to said channel response and at least one of history, recent channel estimation and optimization; and

combine said quality outputs.

18.   The method of claim 17 wherein the combined output provides a signal quality output.

19.   The method of claim 16 further comprising:
said switch:

selectively coupling slots from said antenna assemblies to said channel estimator in a uniform sequence responsive to a first quality output.

20.   The method of claim 19 wherein said switch:
selectively couples outputs of the two antenna assemblies in a non-uniform sequence responsive to a second quality output different from said first quality output.

21.   The method of claim 19 wherein there are two (2) antenna assemblies and switching in said uniform sequence comprises:

switching the slots from said two (2) antenna assemblies in an alternating fashion.

22.   The method of claim 19 wherein there are two (2) antenna assemblies and switching in said uniform sequence comprises:

switching pairs of slots from said two (2) antenna assemblies in an alternating fashion.

23.   The method of claim 16 wherein there are two (2) antenna assemblies and switching in said non-uniform sequence comprises:

forwarding at least two consecutive slots of one of said two (2) antenna assemblies to said common input before forwarding a single slot from the other of said two (2) antenna assemblies.